

## **AMENDMENTS TO THE SPECIFICATION:**

*Please amend the paragraph beginning at page 1, line 29 and continuing through page 2, line 9, as follows:*

By being suitably constructed, the radar antenna can thus concentrate and transmit or receive signals within a small solid angle, which is called the main lobe or sometimes simply the lobe. The main lobe covers a sector with a certain lobe width in the horizontal and vertical direction. Due to its construction, the radar antenna can have a bigger lobe width in the horizontal direction than in the vertical direction and vice versa. Different lobe widths can occur but the width is preferably only one or a few degrees. The larger the antenna the better the directional indication obtained for the target through a narrower main lobe. Better sensitivity is also obtained through increased antenna gain. The main lobe direction is changed through mechanical turning of the antenna or through electrical phase control of the radiating elements in an electrically controlled antenna ESA (~~Elektrisk Styr~~Electrically Scanned Antenna).

*Please amend the paragraph beginning at page 24, line 9, as follows:*

where the parameter  $C(R_k)$  has been estimated and the estimate is designated by  $\hat{C}(R_k)$ . The above equation shows that the clutter signal  $e_c(R_k, n)$ , is suppressed completely when the estimate  $\hat{C}(R_k)$  is equal to the complex parameter  ~~$CCR_k$~~  $C(R_k)$ .

*Please amend the paragraph beginning at page 24, line 17, as follows:*

Figure 6 diagrammatically shows an antenna pattern of a difference lobe  $\Delta$  and sum lobe  $\Sigma$  for a ~~complex parameter  $CR_k$~~ certain bin  $R_k$ . Figure 6 shows an example embodiment where the signals  $x_1$  and  $x_2$  from the antennas are linearly combined in such a manner that a difference channel  $\Delta$  and a sum channel  $\Sigma$  are formed. When the antennas receive reflections from the emitted pulses, the pulses are converted into output signals in the radar system. The output signals are added together in a sum channel  $\Sigma$  and subtracted

in a difference channel  $\Delta$ . The difference lobes  $\Delta$  are a representation of the difference channel  $\Delta$  and the sum lobe  $\Sigma$  is a representation of the sum channel  $\Sigma$ .

*Please amend the paragraph beginning at page 27, line 4, as follows:*

The factor which distinguishes the clutter component  $e_c$  in the sum channel  $\Sigma$  from the clutter component  $e_c$  in the ~~distance~~difference channel  $\Delta$  is thus the complex constant  $C$ . As mentioned, the complex constant  $C$  is constant for a given bin  $R_k$ , which is why it is possible to estimate a complex constant  $\hat{C}$  for each bin for each pulse. If the estimated complex constant  $\hat{C}$  is equal to the complex constant  $C$ , the clutter component  $e_c$  in the sum channel  $\Sigma$  can be eliminated by multiplying the estimated complex constant  $\hat{C}$  by the difference channel  $\Delta$ , whereafter the difference channel  $\Delta$  multiplied by the estimated complex constant  $\hat{C}$  is subtracted from the sum channel  $\Sigma$ .